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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,844	08/21/2003	William Crockford	2202.003	3705
21917	7590	11/17/2004	EXAMINER	
MCHALE & SLAVIN, P.A.			ELLINGTON, ALANDRA	
2855 PGA BLVD			ART UNIT	PAPER NUMBER
PALM BEACH GARDENS, FL 33410			2855	

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/647,844	CROCKFORD, WILLIAM	
	Examiner	Art Unit	
	Alandra Ellington	2855	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 15-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-10, 12 and 13 is/are rejected.
- 7) ☒ Claim(s) 6, 11 and 14 is/are objected to.
- 8) ☒ Claim(s) 1-17 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/21/03</u> . | 6) <input type="checkbox"/> Other: ____. |

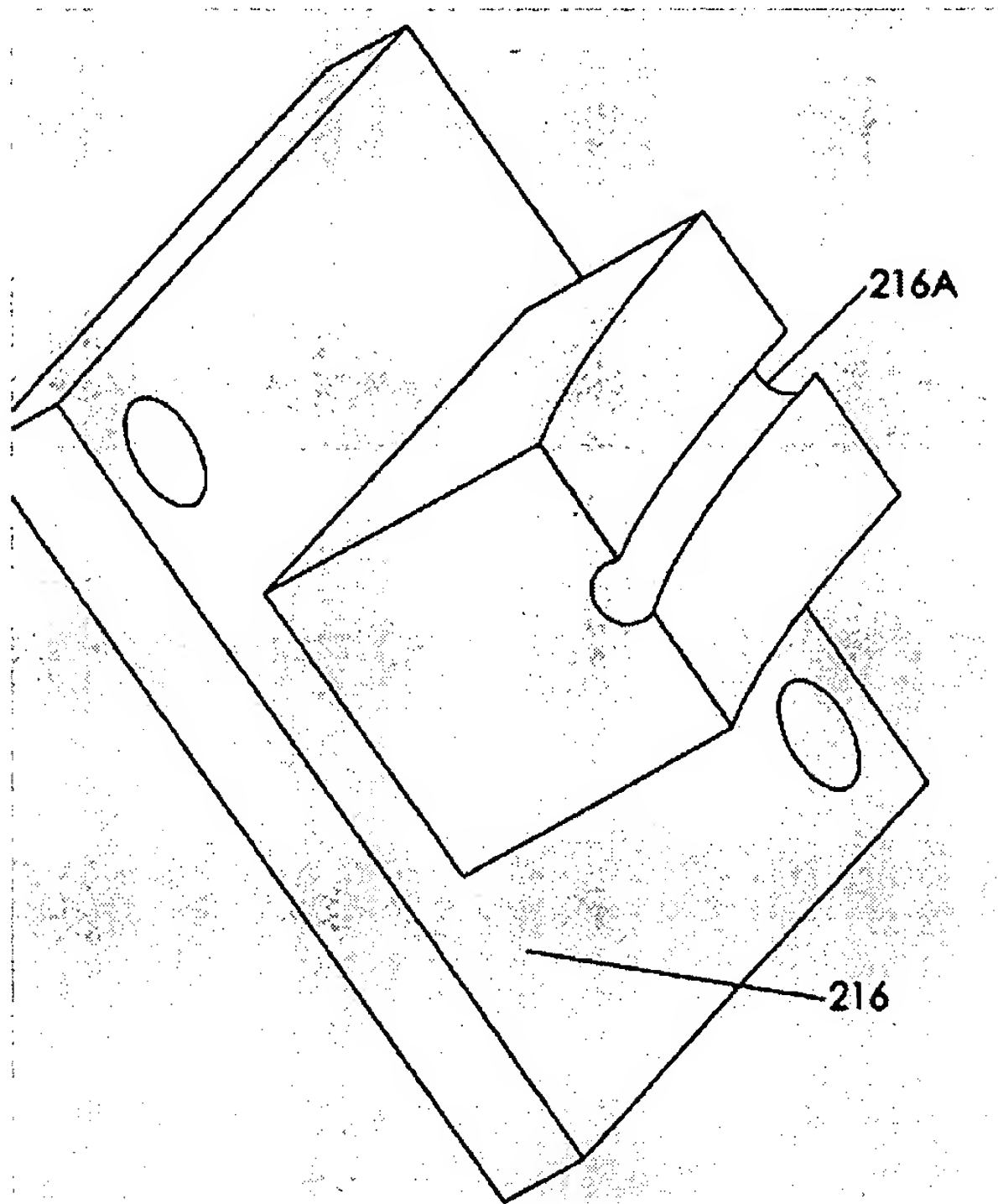
Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-14, drawn to a membrane, classified in class 73, subclass 784.
 - II. Claims 15-17, drawn to a method of manufacturing a flexible membrane, classified in class 29, subclass 592.
2. The inventions are distinct, each from the other because of the following reasons:
3. Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the membrane as claimed can be made by another and materially different process.
4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
5. During a telephone conversation with Michael Slavin on 11/12/04 a provisional election was made without traverse to prosecute the invention of I, claims 1-14. Affirmation of this election must be made by applicant in replying to this Office action. Claims 15-17 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

DETAILED ACTION

Drawings

6. The drawings are objected to because:
- a. On pg. 8 lines 20-21, reference characters 76A,76B,76C were defined as being LVDT type displacement transducers and on pg. 10 lines 5-7 were defined as being transformer body 76A, core rod extension 76B, and a piece of anchoring hardware 76C.
 - b. On pg. 15 line 1, reference characters 216,216A were defined as wires. In Figures 9 and 10, reference characters 216,216A does not represent a wire.



Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate

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prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

7. Claim 14 is objected to because the word *instrument* was misspelled. Appropriate correction is required.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-5, 7-10, 12 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Aufdermarsh et al. (6,084,052) (hereinafter Aufdermarsh).

- a. With respect to Claim 1, Aufdermarsh discloses a membrane comprising a flexible film having a thickness, said membrane 82 adapted to envelope a specimen, instrumentation 84,86,90 embedded in said thickness for measuring a physical property of a specimen (col. 7 lines 30-53 {Fig. 7}).
- b. With respect to Claim 2, Aufdermarsh discloses the membrane of claim 1, wherein said physical property being one of the group consisting of stresses, strains, deformation, temperature, soil suction or moisture content (col. 6 lines 5-55,66-67, col. 6 lines 1-53 {Figs. 4,7}).
- c. With respect to Claims 3 and 5, Aufdermarsh discloses the membrane of claim 1 wherein said membrane 82 has a longitudinal axis and a radial axis, said instrumentation 84,86,90 oriented in said membrane 82 to measure said physical property in the longitudinal direction ({Fig. 7}).
- d. With respect to Claim 4, Aufdermarsh discloses the membrane of claim 1 wherein said membrane 82 is tubular, said instrumentation 84,86,90 oriented in said membrane 82 to measure said physical property in the circumferential direction.
- e. With respect to Claim 7, Aufdermarsh discloses a membrane comprising a flexible film having a thickness, said membrane 82 adapted to envelope a specimen, instrumentation 84,86,90 embedded in said thickness for measuring strains causing deformation of a specimen ({Fig. 7}).
- f. With respect to Claims 8 and 10, Aufdermarsh discloses the membrane of claim 7 wherein said membrane 82 has a longitudinal axis and a radial axis, said

instrumentation 84,86 90 oriented in said membrane 82 to measure strains in the longitudinal direction ({Fig. 7}).

g. With respect to Claim 9, Aufdermarsh discloses the membrane of claim 7 wherein said membrane 82 is tubular, said instrumentation 84,86,90 oriented in said membrane 82 to measure circumferential properties in response to stresses ({Fig. 7}).

h. With respect to Claim 12, Aufdermarsh discloses the membrane of claim 7 wherein said instrumentation 60,62,84,86,90 includes an instrument for measuring temperature in the specimen (col. 5 lines 18-55, col. 7 lines 4-28).

i. With respect to Claim 13, Aufdermarsh discloses the membrane of claim 7 wherein said instrumentation 60,62,84,86,90 includes an instrument for measuring moisture content of the specimen (col. 6 lines 1-67, col. 7 lines 1-28 {Fig. 4,5}).

Allowable Subject Matter

10. Claims 6 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter: The reason for the indication of allowable subject matter is based on the inclusion of *instrumentation oriented in multiple directions in the membrane to measure physical property and calculate or arrive at **Poisson's ratio***.

Conclusion

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12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(5,540,101) (4,989,452) (6,417,540)

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alandra Ellington whose telephone number is (571) 272-2178. The examiner can normally be reached on Monday - Friday, 7:30am - 4:00pm.


14. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on (571) 272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

16. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Alandra Ellington
Art Unit 2855



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MAX NOORI
PRIMARY EXAMINER